

## ABSTRACT

There is provided a method of providing a voice call service and an additional service to a circuit network terminal via a packet-based network, and a  
5 network architecture therefor. In the network architecture, a RAN provides a call service to the circuit network terminal, a mediation gateway makes the circuit network terminal recognized as a packet network terminal in the packet-based network by performing IP registration for the circuit network terminal. An access gateway provides predetermined traffic interfacing upon request from  
10 the mediation gateway and transmits voice traffic from the circuit network terminal to a terminal of a called party via the packet-based network.

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